

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P438103

Luminaire Tested: **ISW-SA1A-830-U-SL2-HSS**

Issue Date: 12/10/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P438103  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/10/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISW-SA1A-830-U-SL2-HSS  
Description: IMPACT ELITE LED WEDGE LUMINAIRE  
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

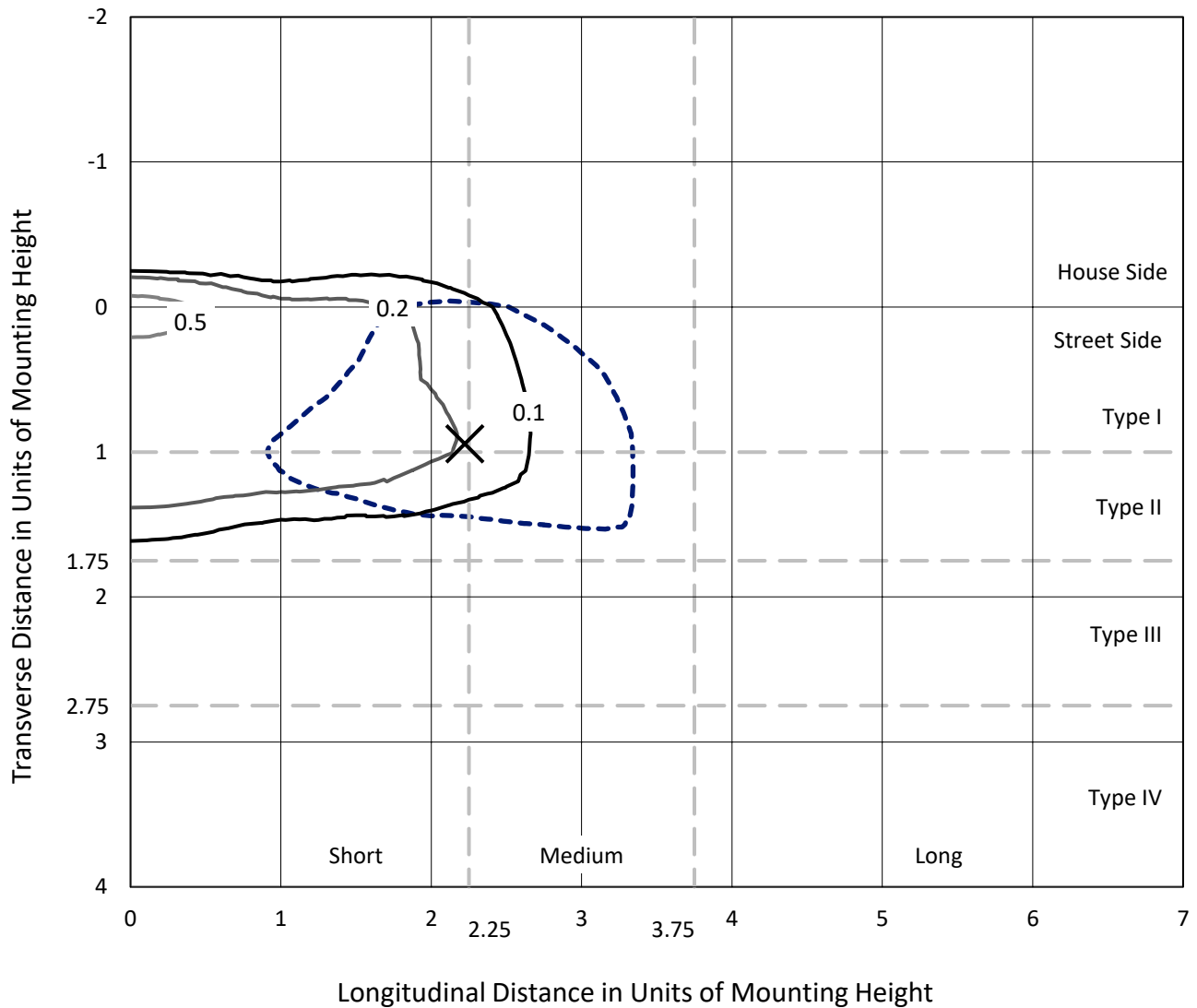
Lumens per Lamp: N/A  
Luminaire Lumens: 1757 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P438103  
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### Iso-Footcandle Lines of Horizontal Illumination

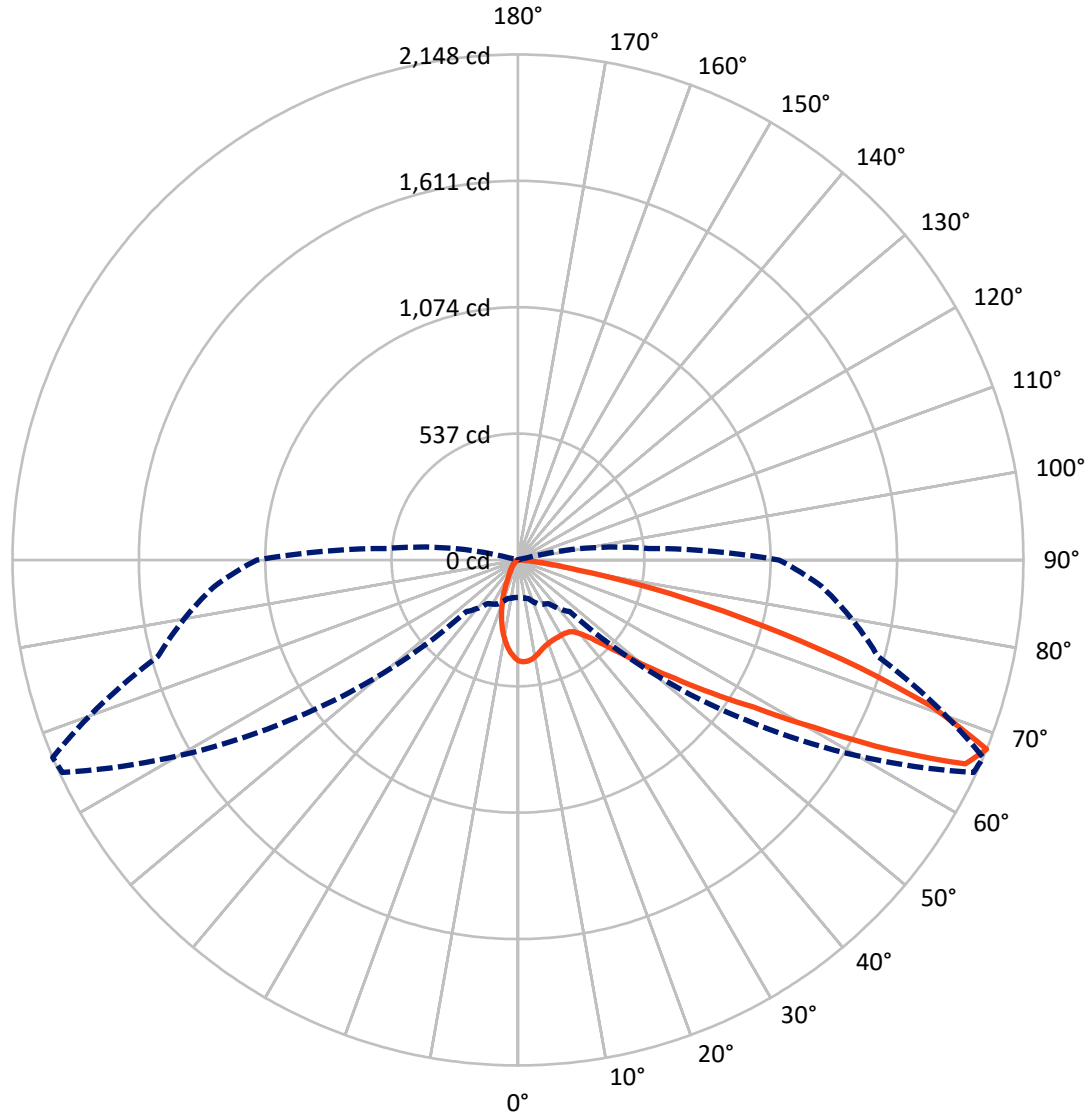
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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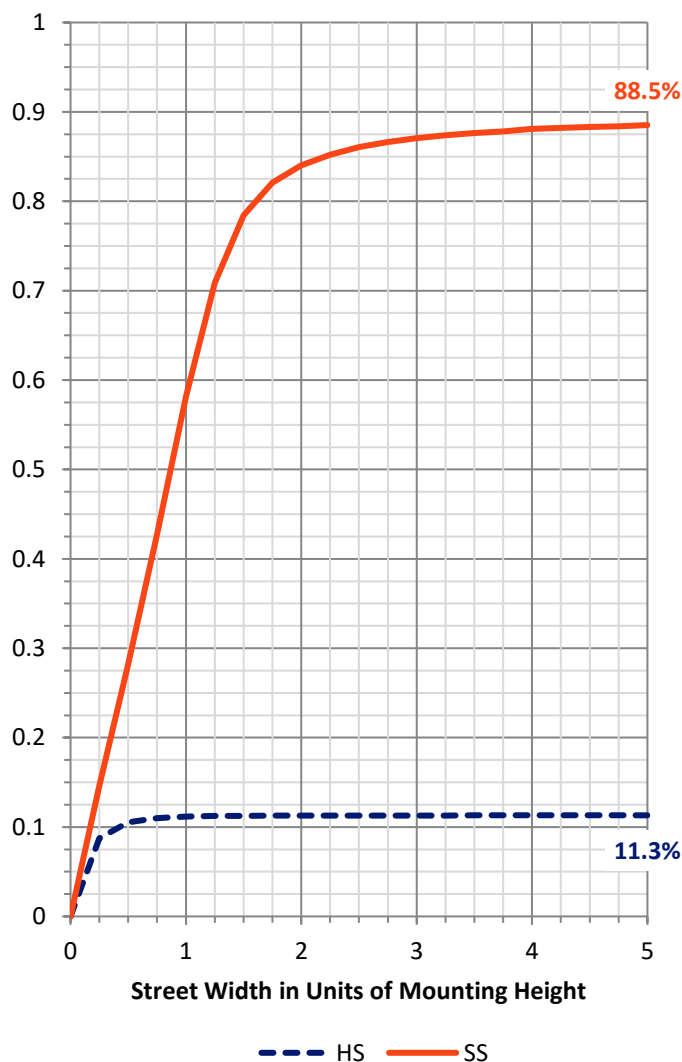
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	200.5	0.0	200.5
	% Fixture	11.4	0.0	11.4
<b>Street Side</b>	Lumens	1556.5	0.0	1556.5
	% Fixture	88.6	0.0	88.6
<b>Total</b>	Lumens	1757.0	0.0	1757.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	2.0
10°-20°	75.7	4.3
20°-30°	108.5	6.2
30°-40°	159.7	9.1
40°-50°	263.8	15.0
50°-60°	424.3	24.1
60°-70°	462.6	26.3
70°-80°	210.5	12.0
80°-90°	16.9	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1757.0	100.0
0°-180°	1757.0	100.0

**Coefficient of Utilization**

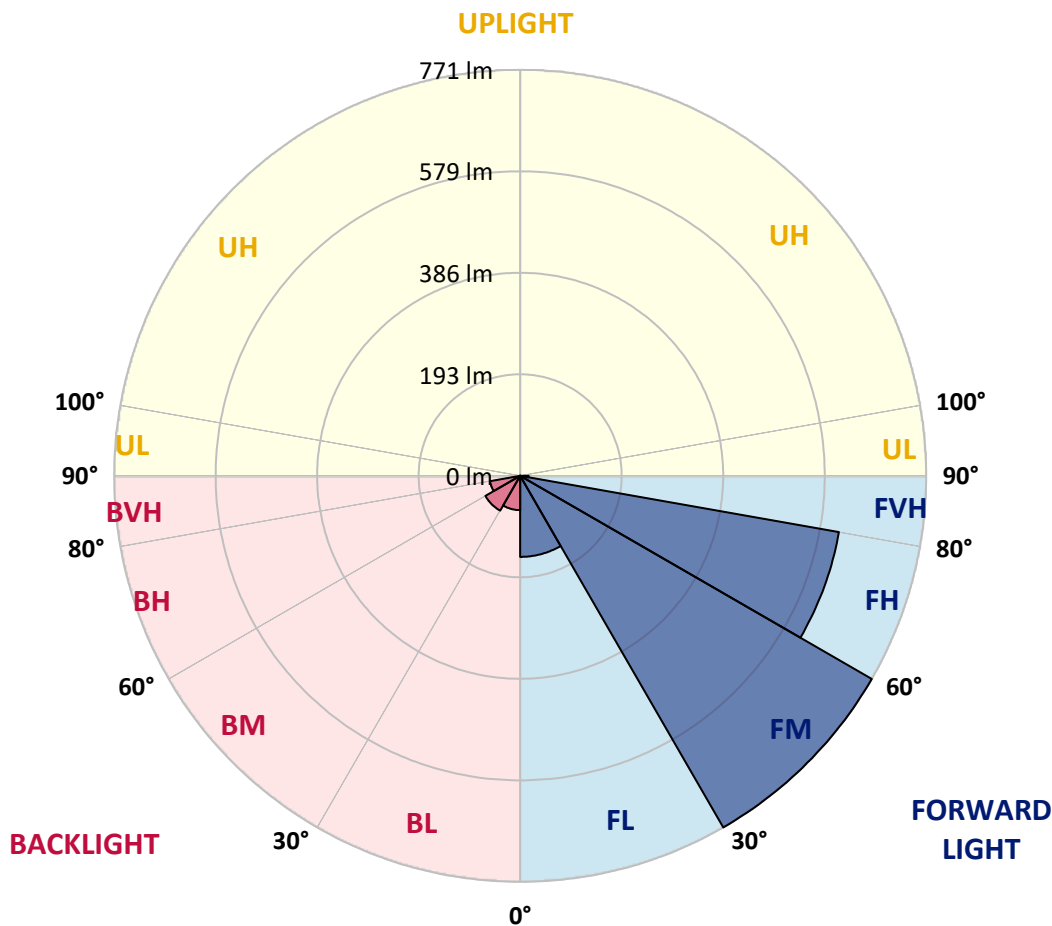


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	154.0	8.8			
FM (30°-60°)	771.4	43.9			
FH (60°-80°)	615.0	35.0			G0/660
FVH (80°-90°)	16.1	0.9			G1/100
BL (0°-30°)	65.1	3.7	B0/110		
BM (30°-60°)	76.3	4.3	B0/220		
BH (60°-80°)	58.2	3.3	B0/110		G0/110
BVH (80°-90°)	0.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7
2.5°	423.3	427.2	428.0	429.5	429.5	431.8	432.6	434.1	433.3	434.1	432.6
5°	394.0	397.1	395.6	403.3	407.9	416.4	424.9	431.8	431.8	434.1	433.3
7.5°	364.7	367.8	367.8	374.0	381.7	394.0	407.9	424.1	425.6	433.3	431.0
10°	341.6	343.1	344.7	351.6	360.9	373.2	391.7	412.5	415.6	428.7	429.5
12.5°	323.1	325.4	327.7	334.6	343.1	355.5	373.2	397.1	402.5	421.0	428.0
15°	313.8	313.8	316.1	322.3	330.0	343.1	359.3	387.1	391.7	416.4	427.2
17.5°	309.2	310.0	311.5	314.6	320.8	331.6	349.3	376.3	382.5	412.5	427.2
20°	315.4	315.4	313.1	314.6	317.7	326.2	342.4	368.6	376.3	410.2	431.0
22.5°	328.5	328.5	324.6	322.3	320.0	323.1	337.7	365.5	372.4	410.2	433.3
25°	348.5	348.5	346.2	339.3	329.3	326.9	338.5	364.7	370.1	411.0	436.4
27.5°	372.4	373.2	370.9	363.2	347.8	334.6	340.8	363.2	369.3	410.2	438.0
30°	404.0	407.1	404.0	393.3	374.7	350.1	346.2	362.4	368.6	408.7	438.7
32.5°	435.7	438.0	441.1	434.1	407.9	374.0	357.8	365.5	370.9	409.4	437.2
35°	466.5	472.7	478.1	480.4	453.4	407.9	377.1	372.4	374.7	411.8	437.2
37.5°	499.7	505.8	517.4	529.0	506.6	445.7	405.6	387.9	387.9	419.5	441.8
40°	542.1	545.2	567.5	581.4	570.6	506.6	446.5	414.1	413.3	441.1	454.9
42.5°	582.9	591.4	620.7	641.5	634.6	578.3	495.8	460.3	452.6	475.8	478.8
45°	642.3	655.4	678.6	709.4	716.3	658.5	572.1	519.7	512.0	527.4	518.9
47.5°	697.8	707.1	729.4	768.8	808.9	761.8	658.5	603.0	596.0	602.2	588.3
50°	715.6	720.2	745.6	794.2	889.1	909.9	777.3	710.9	710.2	705.5	682.4
52.5°	684.7	685.5	714.8	774.2	922.2	1071.8	945.3	850.5	837.4	827.4	796.5
55°	590.6	597.6	622.3	696.3	889.8	1165.1	1214.5	1019.4	997.8	961.5	923.0
57.5°	461.9	458.8	478.8	546.7	790.4	1202.1	1479.7	1233.7	1179.8	1071.0	1019.4
60°	336.2	328.5	341.6	380.1	574.5	1129.6	1633.2	1536.0	1443.5	1189.0	1138.1
62.5°	249.8	249.8	263.7	281.4	352.4	881.3	1657.1	1882.2	1778.1	1338.6	1263.8
65°	199.7	198.9	210.5	237.5	251.4	546.7	1536.8	2129.0	2089.6	1494.4	1346.3
67.5°	159.6	159.6	169.6	206.6	225.9	310.7	1189.0	2136.7	2148.2	1583.8	1296.2
70°	112.6	116.4	128.8	172.7	218.2	237.5	721.0	1835.2	1865.2	1556.8	1162.8
72.5°	63.2	66.3	88.7	128.0	209.7	228.2	403.3	1386.4	1437.3	1304.7	948.4
75°	30.1	33.2	51.7	87.9	175.0	217.4	245.2	983.1	976.2	847.4	589.1
77.5°	13.1	14.7	23.1	50.9	124.1	202.8	179.7	614.6	586.8	397.9	247.5
80°	4.6	5.4	10.0	29.3	70.2	165.8	149.6	283.8	256.8	110.3	64.8
82.5°	0.8	0.8	3.9	13.9	31.6	92.5	123.4	135.7	117.2	27.8	27.8
85°	0.0	0.0	0.8	4.6	7.7	8.5	55.5	54.7	45.5	9.3	13.9
87.5°	0.0	0.0	0.0	0.8	0.8	1.5	1.5	1.5	1.5	1.5	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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 CATALOG NUMBER: ISW-SA1A-830-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7	428.7
2.5°	428.7	428.0	420.2	413.3	404.0	396.3	389.4	382.5	379.4	380.1	381.7
5°	429.5	424.9	408.7	390.9	372.4	353.9	336.2	325.4	316.9	313.8	316.9
7.5°	425.6	417.9	393.3	364.7	335.4	303.0	276.0	256.0	241.3	232.1	236.0
10°	422.6	411.0	374.7	331.6	289.9	247.5	209.0	180.4	160.4	148.8	146.5
12.5°	417.2	403.3	353.2	298.4	240.6	182.7	136.5	106.4	90.2	81.7	84.0
15°	415.6	394.0	331.6	259.9	188.1	123.4	82.5	65.5	58.6	57.1	57.1
17.5°	414.1	387.9	308.4	222.1	134.9	77.1	57.1	52.4	50.9	50.1	50.9
20°	412.5	379.4	285.3	181.2	91.0	55.5	49.3	47.0	45.5	45.5	44.7
22.5°	414.1	374.0	263.7	142.7	62.5	47.0	43.2	41.6	40.1	39.3	39.3
25°	412.5	367.0	237.5	104.9	48.6	41.6	38.6	35.5	33.9	33.2	32.4
27.5°	410.2	358.6	212.8	75.6	42.4	37.0	33.2	30.1	27.8	27.0	27.0
30°	407.9	347.8	184.3	55.5	38.6	33.2	28.5	25.4	23.1	21.6	21.6
32.5°	401.7	337.7	156.5	44.7	34.7	29.3	24.7	20.8	19.3	18.5	18.5
35°	397.9	326.2	127.2	38.6	31.6	25.4	20.8	17.7	16.2	15.4	15.4
37.5°	397.1	313.8	101.0	34.7	28.5	22.4	17.7	15.4	13.9	13.1	13.1
40°	400.2	307.7	77.9	31.6	24.7	19.3	15.4	13.1	11.6	10.8	10.8
42.5°	412.5	306.9	59.4	28.5	22.4	17.0	13.9	10.8	9.3	8.5	8.5
45°	440.3	311.5	47.0	26.2	19.3	14.7	11.6	9.3	7.7	6.9	6.9
47.5°	485.8	330.8	39.3	23.9	16.2	12.3	9.3	7.7	5.4	5.4	5.4
50°	559.8	371.7	34.7	20.8	13.9	10.0	7.7	5.4	3.9	3.9	3.9
52.5°	669.3	434.1	31.6	18.5	11.6	8.5	6.2	3.9	3.1	3.1	3.1
55°	782.6	512.0	29.3	15.4	10.0	6.9	4.6	3.1	2.3	2.3	1.5
57.5°	886.0	576.0	26.2	13.1	7.7	5.4	3.1	2.3	1.5	1.5	1.5
60°	1008.6	640.0	22.4	10.0	6.2	3.9	2.3	1.5	0.8	0.8	0.8
62.5°	1127.3	676.2	18.5	7.7	4.6	3.1	1.5	0.8	0.8	0.8	0.8
65°	1179.0	659.3	14.7	6.2	3.9	2.3	0.8	0.8	0.8	0.0	0.0
67.5°	1109.6	557.5	11.6	4.6	3.1	1.5	0.8	0.8	0.0	0.0	0.0
70°	955.4	451.1	9.3	3.9	2.3	0.8	0.8	0.8	0.0	0.0	0.0
72.5°	750.3	332.3	7.7	3.1	1.5	0.8	0.8	0.8	0.0	0.0	0.0
75°	456.5	167.3	6.9	2.3	1.5	1.5	0.8	0.8	0.8	0.0	0.0
77.5°	155.0	52.4	4.6	2.3	1.5	1.5	0.8	0.8	0.8	0.8	0.8
80°	45.5	17.0	3.9	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	23.9	7.7	2.3	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	13.1	3.9	1.5	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8
87.5°	2.3	1.5	1.5	0.8	0.8	0.8	0.0	0.0	0.0	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2408-195-9  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/07/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: MCGRAW EDISON  
 Catalog Number: **GALN-SB1A-830-U-5WQ**  
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

**Spectral Parameters**

CCT (K): 3050  
 CIE u': 0.2476  
 CIE v': 0.5251  
 Duv: 0.0034  
 CIE x: 0.4383  
 CIE y: 0.4131  
 CIE z: 0.1487  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 581  
 Purity: 55.55201  
 Rf: 81.5  
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



**Test Conditions**

Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

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Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.27**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

**Summary**

$R_f = 81.5$   
 $R_g = 99.2$   
 $CIE R_a = 81.0$   
 $R_9 = 7.1$



**Color Vector Graphics**





**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)